FIGURE 1

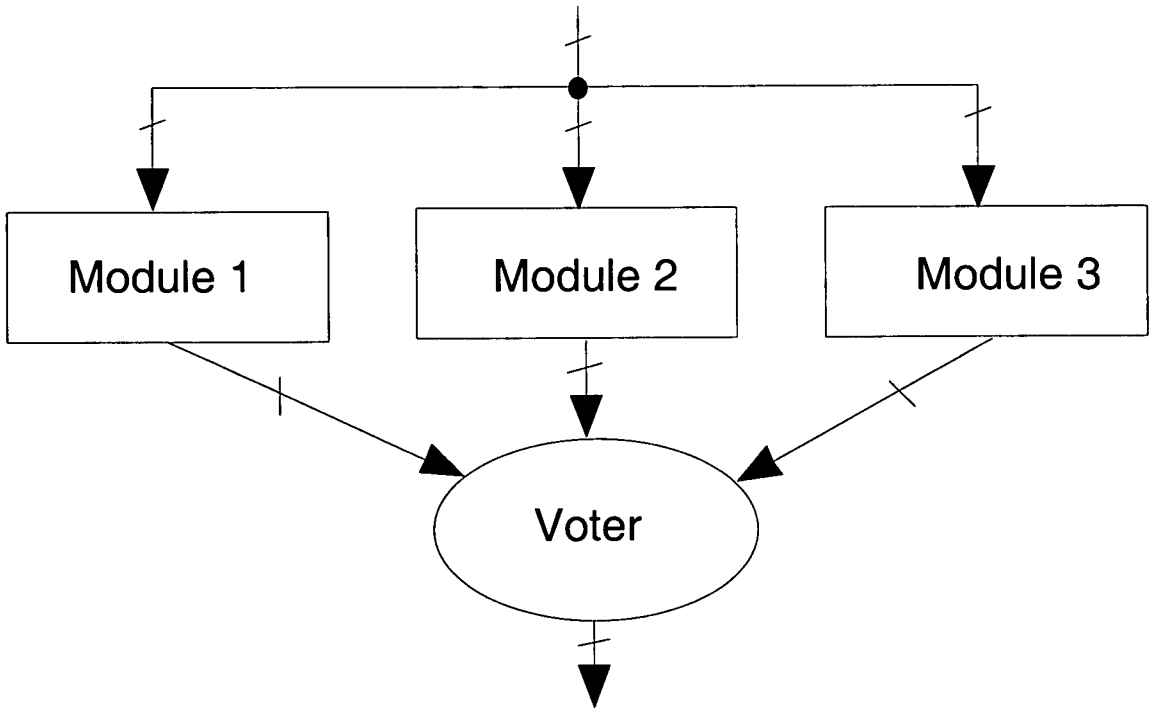
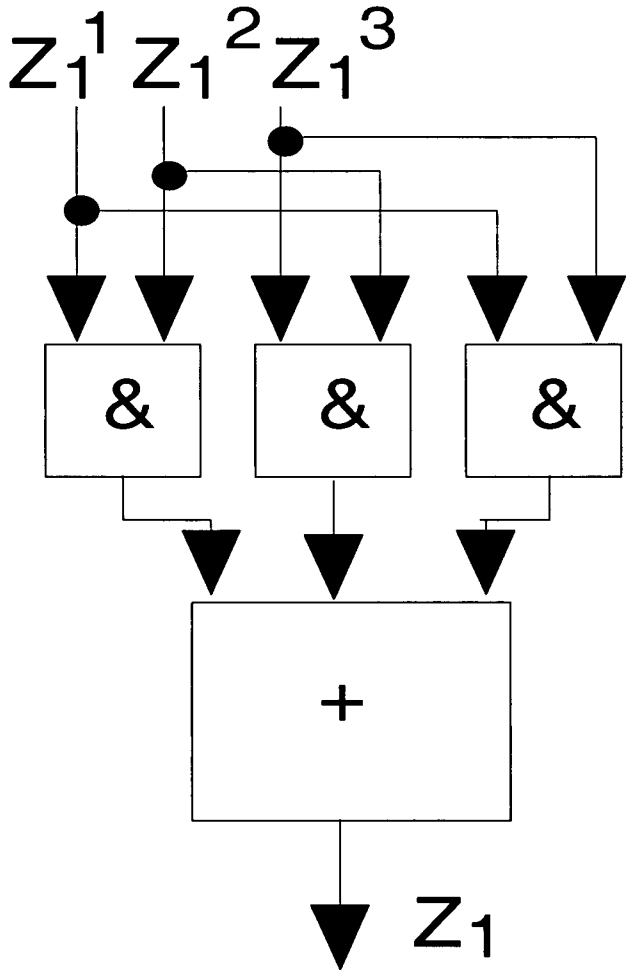
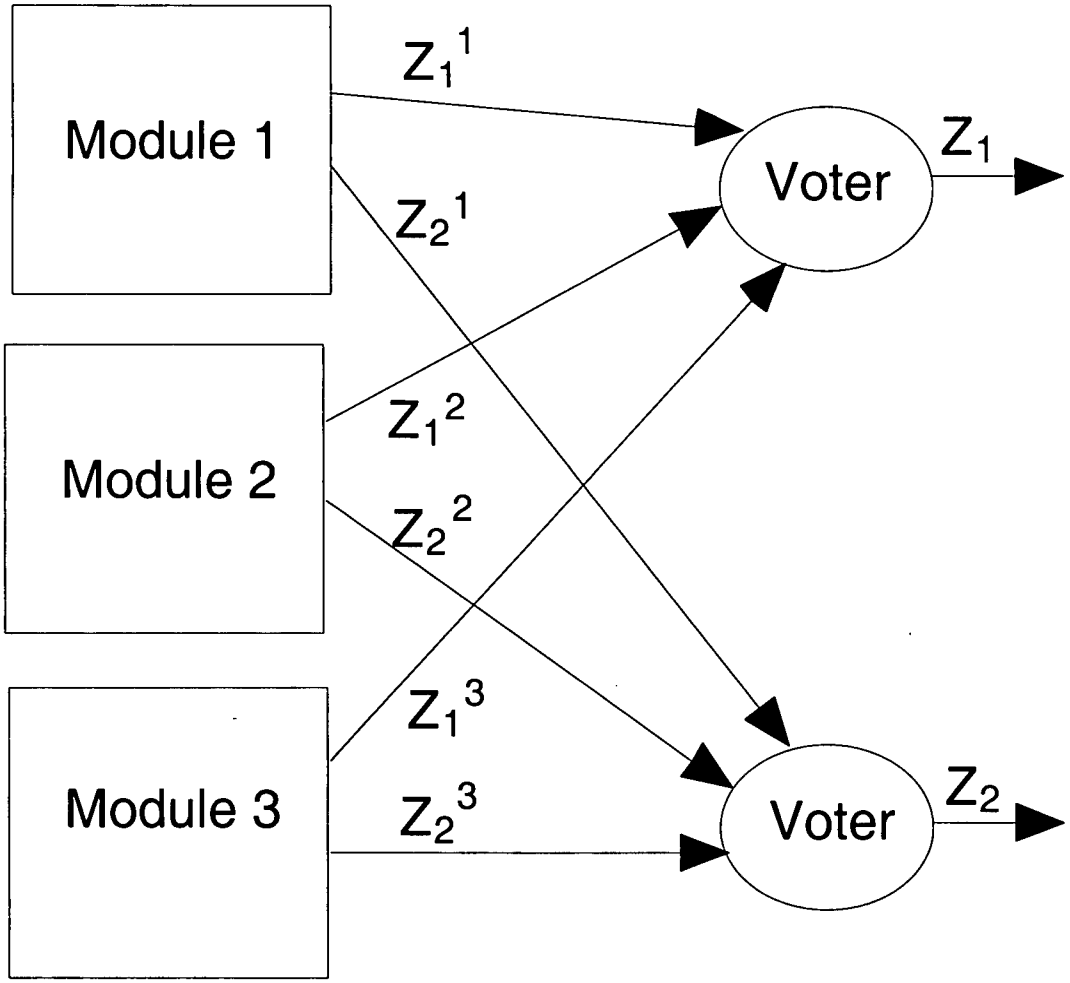


FIGURE 2




Module 1
Module 2
Module 3
Z_1^1
Z_2^1
Z_1^2
Z_2^2
Z_1^3
Z_2^3
Voter
Voter
Z_1
Z_2

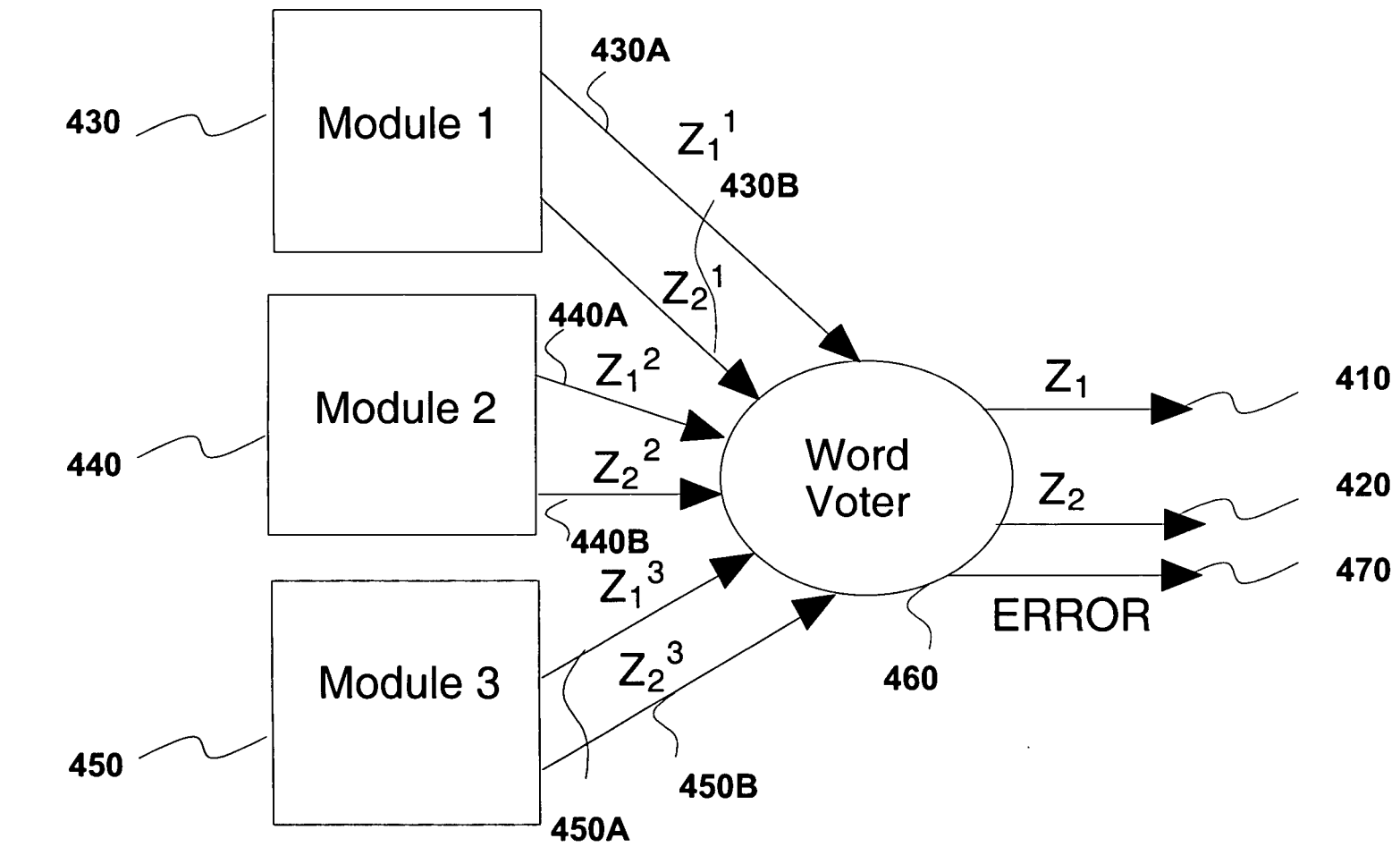

Module 1
Module 2
Module 3
Word Voter
430
430A
430B
440
440A
440B
450
450A
450B
460
410
420
470
Z_1^1
Z_2^1
Z_1^2
Z_2^2
Z_1^3
Z_2^3
Z_1
Z_2
ERROR
400

FIGURE 5

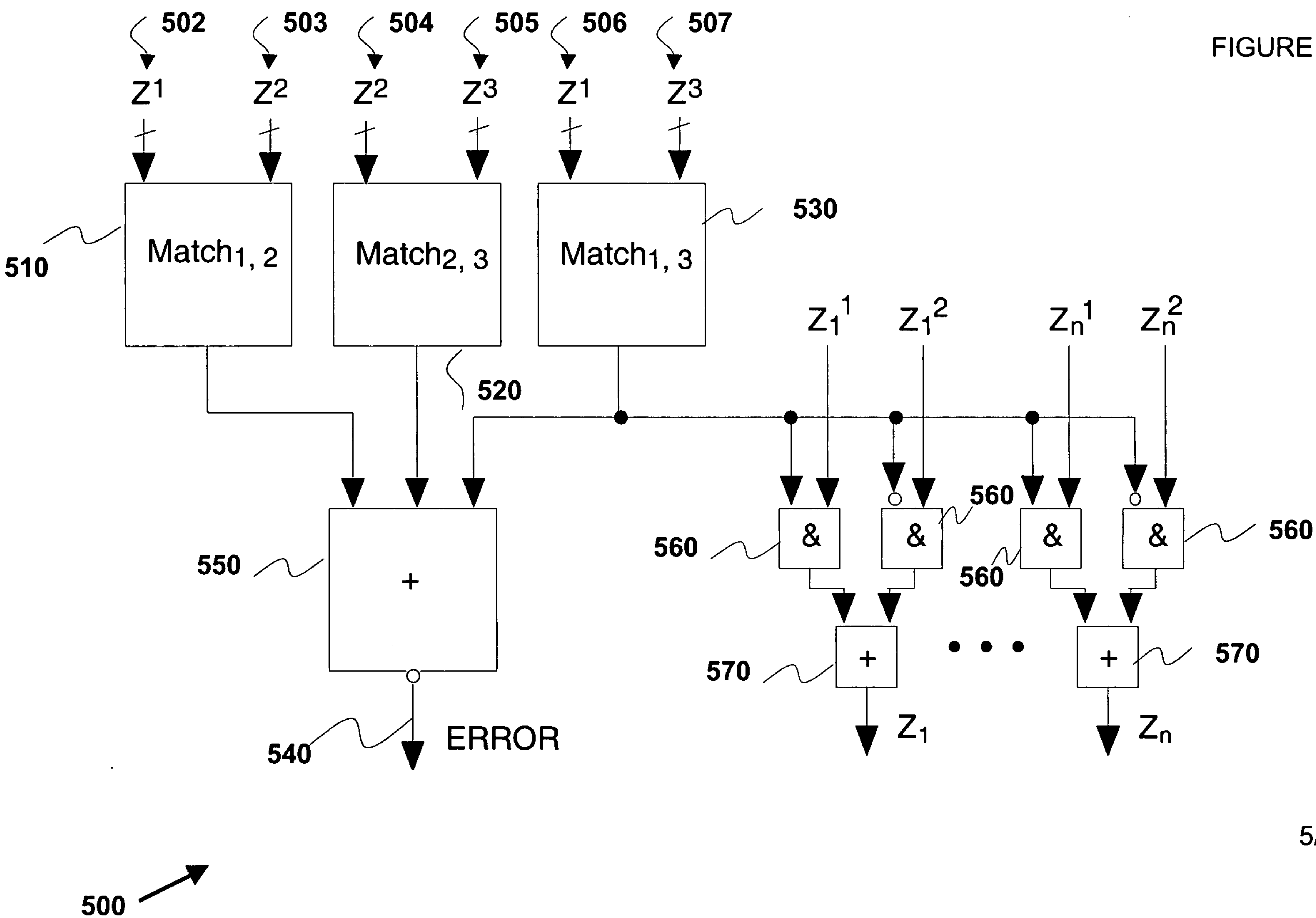
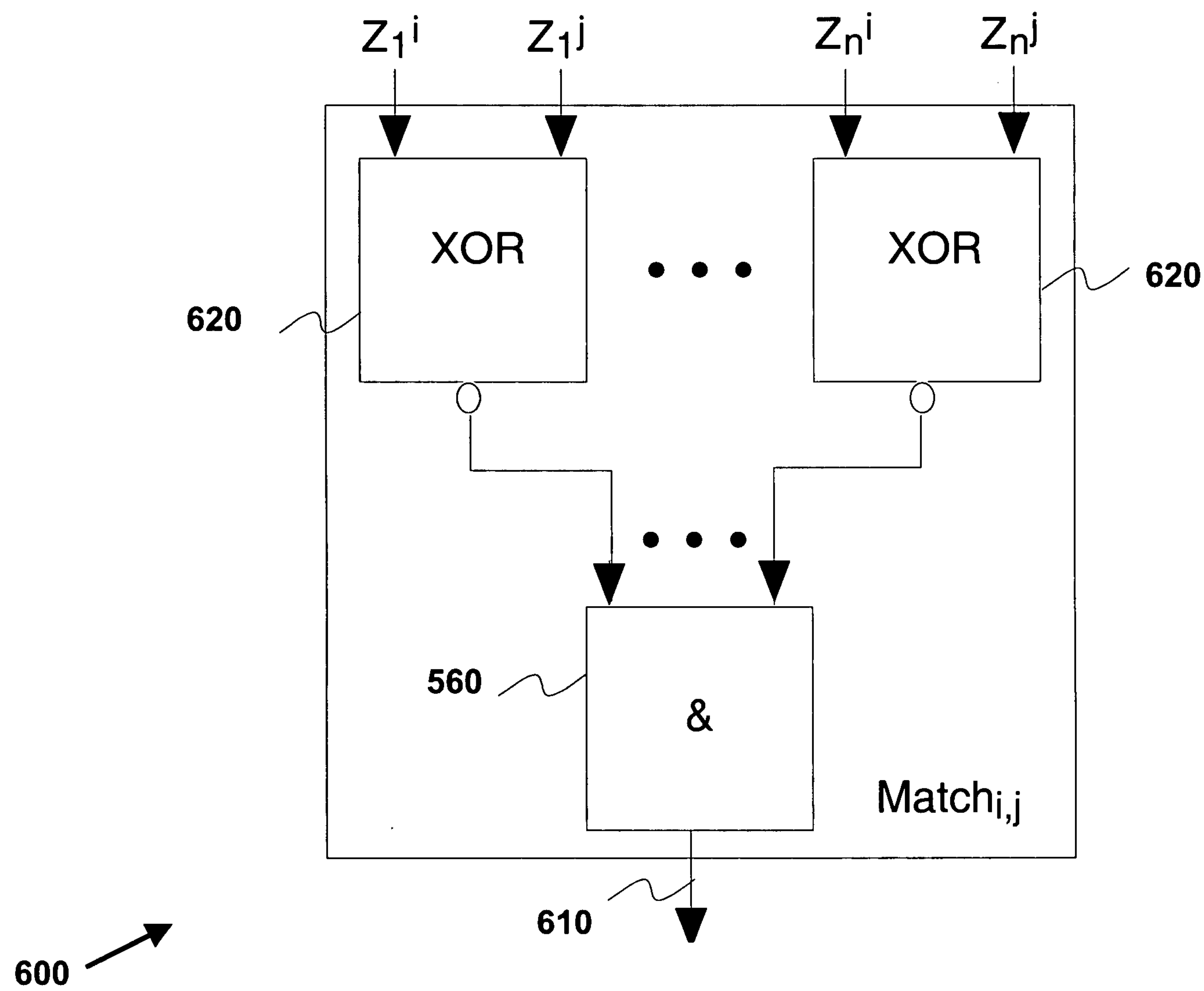


FIGURE 6



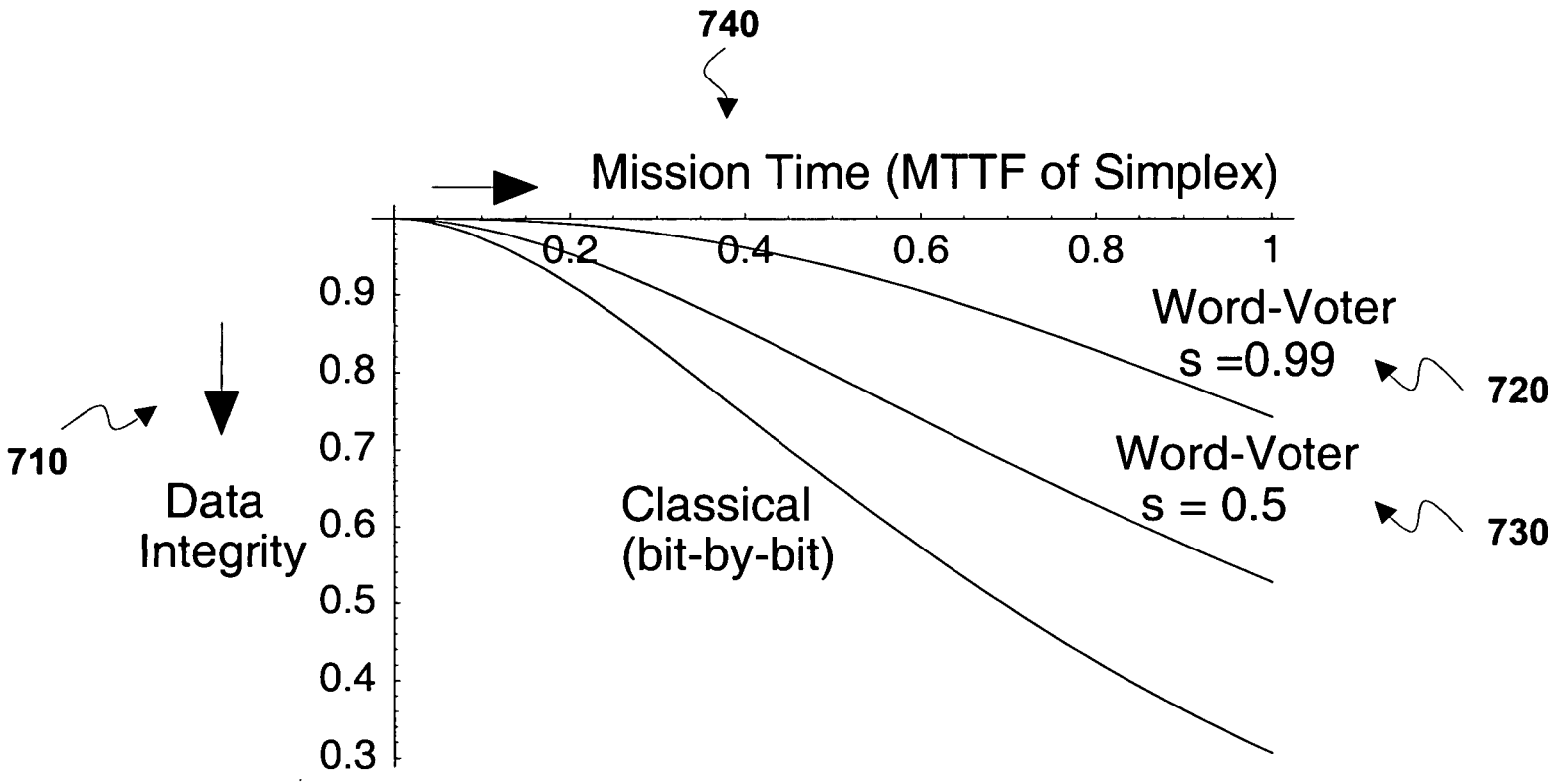
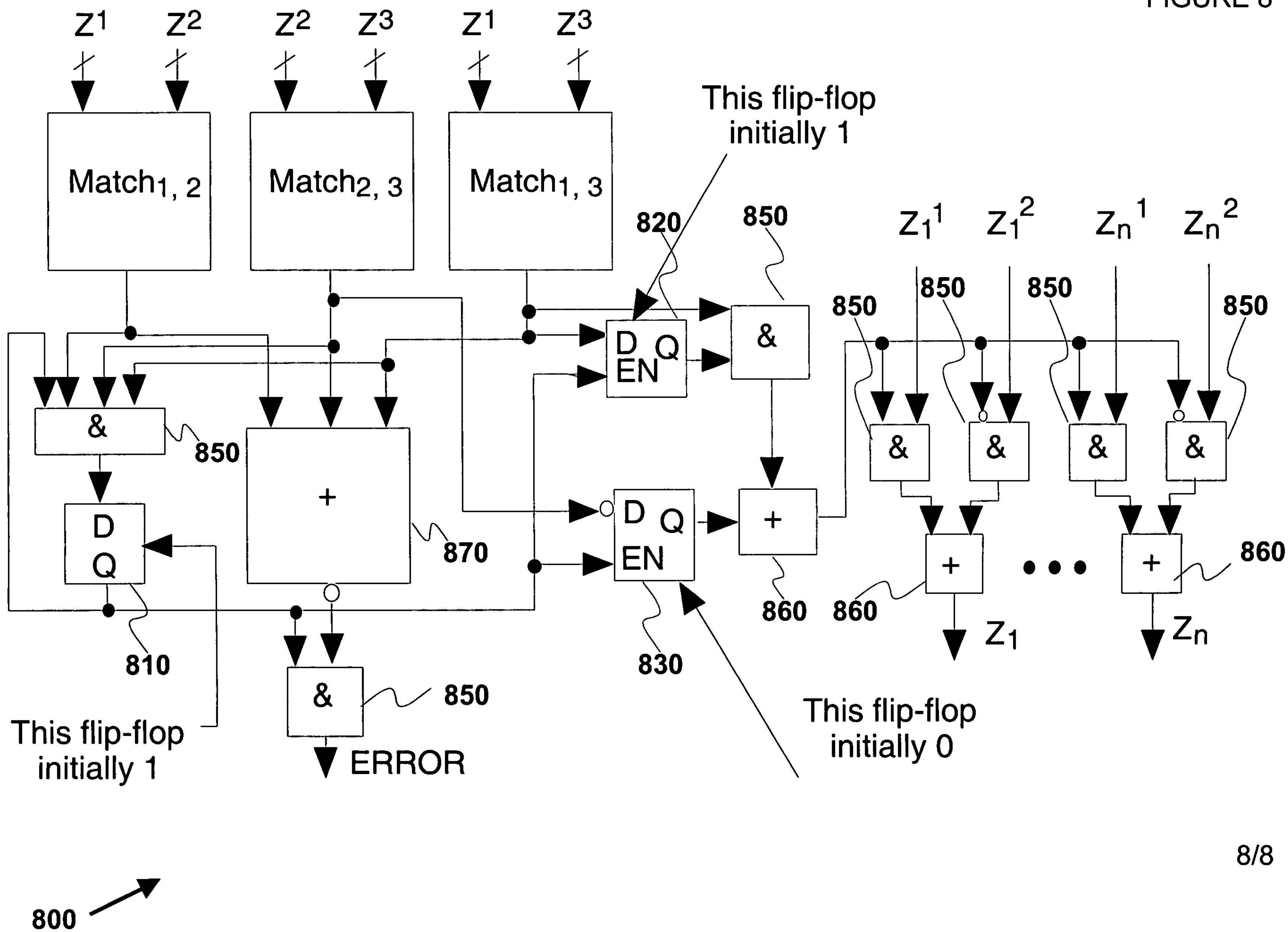

740
Mission Time (MTTF of Simplex)
0.2
0.4
0.6
0.8
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
710
Data
Integrity
Word-Voter
s =0.99
720
Word-Voter
s = 0.5
730
Classical
(bit-by-bit)

FIGURE 8



Z1
Z2
Z2
Z3
Z1
Z3
Match1, 2
Match2, 3
Match1, 3
This flip-flop initially 1
820
850
Z1 1
Z1 2
Zn 1
Zn 2
&
D Q EN
+
850
870
810
830
860
860
860
Z1
Zn
ERROR
This flip-flop initially 1
This flip-flop initially 0
800